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Occurrence of a New Fairy Shrimp, *Chirocephalopsis uchidai* sp. nov., from Hokkaido, Japan (Chirocephalidae, Anostraca)[1]

By

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(*With 2 Text-figures*)

As the Anostraca inhabiting Japan, only one species has been recorded up to present, namely, *Branchinella kugenumaensis* (C. Ishikawa) from middle and western Japan. In the present paper a species belonging to the genus *Chirocephalopsis* Daday will be reported from temporary pools which remain after thawing of snow and dry up in early June in the shelter woods 200 m distant from the sea-shore, Zenibako, 16 km north west of Sapporo. The species seems to be new to science as is described below.

Chirocephalopsis uchidai sp. nov.

Locality : Zenibako, pool, late May, 1956, 3♂♂.

Male : Body slender, composed of 11 pedigerous and 9 post-pedigerous segments. Colour pale orange. First antennae almost of 2 times length of eyes, long and slender, with sensory hairs at the tip. Second antennae two-segmented,

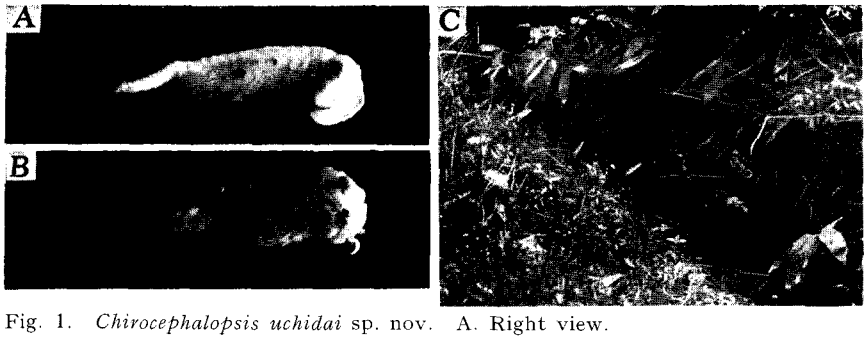

Fig. 1. *Chirocephalopsis uchidai* sp. nov. A. Right view. B. Dorsal view. C. A temporary pool in which the specimen was collected.

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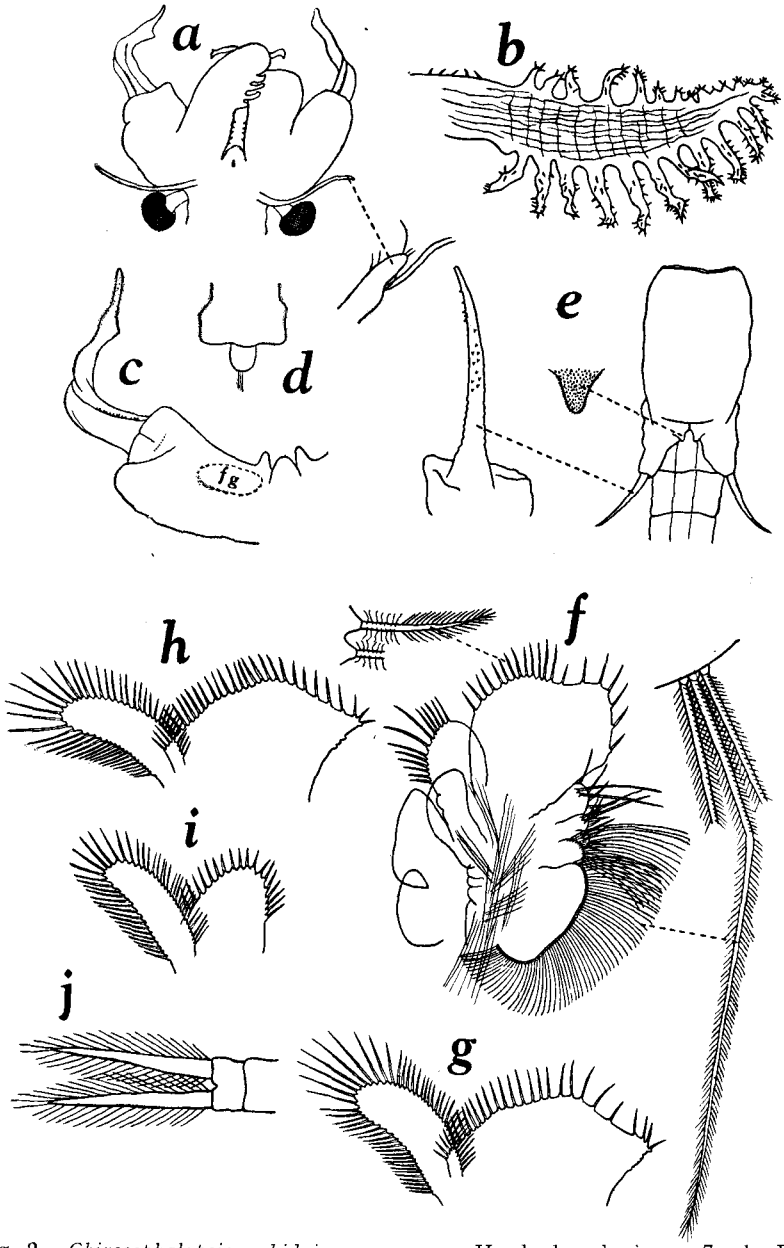

Fig. 2. *Chirocephalopsis uchidai* sp. nov. a. Head, dorsal view. ×7. b. Frontal outgrowth of right 2nd antenna, unrolled, dorsal view. ×10. c. Left 2nd antenna, dorsal view, frontal outgrowth cut off. fg : place of frontal outgrowth. ×10. d. Labrum, ventral view. ×20. e. External genital organ, ventral view. ×10. f. Right lst leg, posterior side. ×16. g, h and i. Endopodite and exopodite of right 4th, 8th and 11th legs respectively, posterior side. ×16. j. Cercopods, dorsal view. ×7.

root of basal joint furnished with a club process on inner side; distal joint rather chitinized, curved inward, with small prickles. Frontal outgrowths from basal joints of 2nd antennae flexible and usually rolled, lamelliform, tapering toward the tip, with digitate and prickly processes of which about 12 longer ones are on outer side and about 15 shorter ones on inner side. Besides them, it is furnished with several chitinized spines inside of basal part. Frontal process between the basis of 2nd antennae very short and conical in form. Labrum somewhat square, furnished with a semicircular process with hairs. External genital organ consisting of a pair of penis and basal joint, the latter being cylindrical, inside of which stands a conical process with numerous small hooks; penis long and slender, somewhat articulated, provided with hook-like denticles, folded finely at base, projected from the basal joint. First leg : lst and 2nd endites fringed with many long plumose hairs on apical margin ; 3rd, 4th and 5th endites with 3–4 apical short plumose setae and two long plumose setae on inner sides respectivel;y one endopodite somewhat square, with plumose setae on apical margin; one exopodite elliptical, with plumose setae on outside margin; one epipodite of rather long oval form, smooth on margin; one praepipodite divided into two lamellae, with smooth margin respectively. Fourth leg : endopodite more angular than that of lst leg, with plumose setae on outer margin; exopodite of long elliptical form, with plumose setae on margin. Eighth leg : both of endopodite and exopodite nearly resembling 4th leg in shape, but exopodite rather narrow. Eleventh leg : endopodite somewhat triangular in form, the smallest among those of all legs, with plumose setae on margin; exopodite narrower than 8th leg's one. Cercopods about a half as long as post-pedigerous segments, lanceolate, flat, fringed with long plumose setae on both sides.

Female : Unknown.

Length of body : 16–18 mm including cercopods.

The holotype (♂) is preserved in the collection of the Zoological Institute, Faculty of Science, Hokkaido University and the paratypes (2 ♂♂) in the Biological Institute, Faculty of Liberal Arts, Ibaraki University.

The present new species closely resembles *Chirocephalopsis claviger* (S. Fischer) which inhabits northern Sibera, River Taimyr, but differs from the latter in the following points; linear edge with chitinized spines on the basal inner side of frontal outgrowth of 2nd antenna, and fewer number of prickles of distal segment of 2nd antenna.

So far as the writer is aware, *Branchinella kugenumaensis* (C. Ishikawa) inhabits south of central Japan, and *Polyartemia forcipata* (S. Fischer) and *Branchinecta paludosa* (O. F. Müller) are reported in northern Kurile Islands, but no Anostraca has yet been reported from northern Japan to middle Kurile Islands.

Finally, it is my most pleasure that I can dedicate this new species to Professor Tohru Uchida, under whose kind direction the present study was undertaken, in the occasion of his 60th birthday. Hearty thanks should also be expressed to Professor Masuzo Uéno

for his kind suggestions with respect to description of the species. Further, I wish to express my thanks to Assistant Professor Mayumi Yamada and Dr. Shôichi F. Sakagami for kind criticisms and Mr. Masakazu Konishi in favouring me such valuable material.

References

Daday de Deés, E. 1910. Monographie systematique des Phyllopodes anostracés. Ann. Sci. Nat. Zool. 9e sér. 11 : 91-492.

Ishikawa, C. 1895. Phyllopod Crustacea of Japan. Zool. Mag. Tokyo 7 : 98-102.

Linder, F. 1941. Contribution to the morphology and the taxonomy of the Branchiopoda Anostraca. Zool. Bidrag, Uppsala 20 : 101-302.

Shäferna, K. 1932. Studien über Phyllopoda Anostraca. Mém. Soc. Roy. Sci. Bohême, Classe Sci. Ann. 1931, 17.

Uéno, M. 1927. The freshwater Branchiopoda of Japan I. Mem. Coll. Sci. Kyoto Imp. Univ. Ser. B, 2 : 259-311.

———— 1936. Phyllopod Crustacea of the Kurile Islands. Bull. Biogeogr. Soc. Japan 6 : 235-239.